

Worksheet for Technical Review of Working Draft of Proposed Permit

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| Company Name: | Northrop Grumman Shipbuilding, Inc. – Gulf Coast | AI #: 593 | TEMPO Activity No: |
| Facility Name: | Avondale Facility | Remarks Submitted by: | |
| Permit Writer: | Shane Clary | Permit Writer Email address: | Shane.Clary@la.gov |

Instructions

Permit Reference – Indicate specific portion(s) of the permit to which the remark relates (i.e. “Specific Condition 120”, or “Section II Air Permit Briefing Sheet”, etc.).

Remarks – Explain the basis for each remark. Provide regulatory citations where possible. If the remark is made due to an error or omission in the permit application this must be noted and the revised information *must be submitted*. Revised information may be submitted separately from this worksheet. Please be aware that revised information must be submitted in writing and certified by the Responsible Official, and if necessary, by a Professional Engineer licensed in Louisiana. *Please Note:* New or additional equipment, processes or operating conditions not addressed in the original permit application will be addressed on a case-by-case basis. The Department reserves the right to address such changes in a separate permit action.

DEQ Response – ***DO NOT COMPLETE THIS SECTION.*** This section will be completed by Air Permits Division of DEQ, included in the proposed permit package and made available for public review during the public comment period.

- Additional rows may be added as necessary.
- Completed Form shall be emailed to the Permit writer in MS Word compatible format within the deadline specified in the email notification.

| Permit Reference | Remarks | Air Permits Division Response (for official use only) |
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| Cover letter | Responsible official is incorrectly identified as Woody Oge and needs to be updated to Robert L. Merchant, Vice President, Avondale Facility | Change made. |
| Cover letter | The company name is “Northrop Grumman Shipbuilding, Inc. – Gulf Coast” not “Northrop Grumman Ship Systems Inc – Gulf Coast” | Change made. |
| Air Permit Briefing Sheet | The company name is “Northrop Grumman Shipbuilding, Inc. – Gulf Coast” not “Northrop Grumman Ship Systems Inc – Gulf Coast” | Change made. |
| Air Permit Briefing Sheet Page 17 | Request to modify the language of the last sentence referring to nonroad engines to more closely match the referenced regulation at 40 CFR 1068.31(e) and to read as follows: “In accordance with 40 CFR 1068.31(e), a nonroad engine ceases to be a nonroad engine and becomes a stationary engine if it is portable or transportable and it is used or will be used in a single specific location at the facility for 12 months or longer.” | Change made. |

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| Air Permit Briefing Sheet Page 18 | Request to remove reference to LAC 33:III, Chapter 2115 from ARE2 Outdoor Painting emission source. According to LAC 33:III.2115, the "Section does not apply to waste gas streams that are required by another federal or state regulation to implement controls that reduce VOC to a more stringent standard than would be required by this Section." The painting or surface coating operations of ARE2 are subject to 40 CFR Part 63 Subpart II and LAC 33:III.2123.C, which establish more stringent standards than Section 2115. | Change made. Tables 1 & 2 of the Briefing Sheet have also been updated to reflect the change. |
| Air Permit Briefing Sheet Pages 26 through 29 | Request to add emission point numbers (EPNs) to the emission source descriptions. | Change made. |
| Air Permit Briefing Sheet Page 51 | Request to add the following surface coating emission sources to the ID numbers listed above "Painting Operations": 016-SC, 031D, 034-SC, 049, 097 | RLP 20, RLP 21, RLP 22, RLP 23, RLP 24, RLP 25, RLP 26, RLP 27, RLP 37, RLP 38, RLP 39, RLP 40, RLP 41, 031D, 035D, 049, and 097 were added to "Painting Operations" on pg 51 of the Briefing Sheet. |
| Inventories Subject Item Inventory EQT 0001 | Change the max. operating rate to 16.24 MMBT U/hr to match the maximum operating rate/throughput of 16240 scf/hr natural gas consumption. | Change made. |
| Inventories Subject Item Inventory EQT 0033 | Change the max. operating rate to 2224 tons/yr as indicated on the EQ. | Change made. |
| Inventories Subject Item Inventory EQT 0077 EQT 0078 EQT 0079 | Change the units for max. and normal operating rates to "t/yr". | "t/yr" is not an available unit in TEMPO. The unit has been changed to "(other units)" and the following statement has been added to the Contents section, "Other units are linear feet of plate cut per year." |

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| Inventories Subject Item Inventory EQT 0103 EQT 0153 EQT 0154 EQT 0155 EQT 0156 EQT 0157 EQT 0158 EQT 0159 EQT 0160 EQT 0161 EQT 0164 EQT 0165 EQT 0166 EQT 0167 EQT 0168 EQT 0169 EQT 0170 EQT 0171 EQT 0172 EQT 0173 EQT 0174 EQT 0175 EQT 0176 EQT 0177 EQT 0178 EQT 0179 EQT 0180 EQT 0200 EQT 0201 EQT 0202 EQT 0203 EQT 0204 FUG 0008 | Change the operating time to 8760 hr/yr which is the basis for the relationship between hourly and annual emission rates | Change made. |
| Inventories Subject Item Inventory EQT 0205 EQT 0206 EQT 0207 EQT 0211 EQT 0212 EQT 0213 | Change the units to "ft/yr" for max. operating rate as indicated on the EIQs. | "Ft/yr" is not an available unit in TEMPO. The unit has been changed to "(other units)" and the following statement has been added to the Contents section, "Other units are linear feet of plate cut per year." |
| Inventories Stack Information EQT 0006 | Remove "4.17" from the Discharge Area field | Change made. |
| Inventories Stack Information EQT 0016 | Remove "1.67" from the Discharge Area field | Change made. |
| Inventories Stack Information EQT 0034 | Revise stack parameters as follows: 56.1 ft/sec velocity, 20000 cubic ft/min flow rate, 2.75 feet diameter | Change made. |
| Inventories Stack Information EQT 0047 EQT 0048 EQT 0049 | As indicated on the EIQs, the three paint room heaters exhaust into the inside of the paint room building (EQT 0187). The stack parameters on the stack information table do not accurately describe the emission point for these emission sources. Request to update the stack parameters to be equal to stack parameters for EQT 0187 (50,000 cubic ft/min flow rate, 4.83 ft diameter). | Per a phone conversation with the facility, the stack information for these sources has been deleted. |
| Inventories Stack Information EQT 0058 EQT 0059 EQT 0060 EQT 0061 | Update the flow rates to 339,000 cubic ft/min as indicated on the EIQs. | Change made. |

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| Inventories Stack Information EQT 0081 | Revise stack parameters as follows: 0.33 feet diameter, 15 feet height | Change made. |
| Inventories Stack Information EQT 0128 | Revise stack parameters as follows: 128 ft/sec velocity, 12000 cubic ft/min flow rate | Change made. |
| Inventories Stack Information EQT 0131 EQT 0132 EQT 0133 EQT 0134 EQT 0135 EQT 0136 EQT 0137 EQT 0138 EQT 0139 EQT 0140 | Remove "2.25" from the Discharge Area field | Change made. |
| Inventories Stack Information RLP 0020 | Revise stack parameters as follows: 128 ft/sec velocity, 29000 cubic ft/min flow rate | Change made. |
| Inventories Subject Item Groups CRG 0006 CRG 0007 | It is unnecessary to have two common requirements groups for the storage tanks at the gas free plant. The Pollution Barge Requirements group (CRG 0006) can be removed and the subject items moved into the Storage Tank Requirements group (CRG 0007). The emission source subject items currently assigned to CRG 0006 have similar functions to the emission source subject items in CRG 0007 – both sets of subject items contain tanks located on barges and both sets of tanks are used to store similar materials. In addition, the specific requirements that apply to CRG 0006 and CRG 0007 are identical. | CRG 0006 has been deleted and its subject items moved to CRG 0007. Also, CRG 0007 has been renamed "Barge Storage Tank Requirements (excluding Vegetable Oil and Gasoline)" |
| Inventories Subject Item Groups CRG 0011 | Request to clarify the group description to indicate that the common requirements group specifically includes burning and cutting units that are not exhausted through dust collectors. | Change made. |
| Inventories Group Membership RLP 0020 | Plate Shop Blast Plant Exhaust Vent A – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0021 | Plate Shop Blast Plant Exhaust Vent B – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0022 | Plate Shop Blast Plant Exhaust Vent C – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0023 | Plate Shop Blast Plant Exhaust Vent D – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0024 | Plate Shop Blast Plant Exhaust Vent E – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |

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| Inventories Group Membership RLP 0025 | Plate Shop Blast Plant Exhaust Vent F – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0026 | Plate Shop Blast Plant Exhaust Vent G – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0027 | Plate Shop Blast Plant Exhaust Vent H – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0037 | Structural Blast Plant Exhaust Vent A – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0038 | Structural Blast Plant Exhaust Vent B – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0039 | Structural Blast Plant Exhaust Vent C – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0040 | Structural Blast Plant Exhaust Vent D – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership RLP 0041 | Structural Blast Plant Exhaust Vent E – Surface Coating operations should be a member of GRP 0004 SC-CAP Surface Coating Emissions Cap | Change made. |
| Inventories Group Membership EQT 0012 | Shot Blast Tumble Unit Dust Collector should be member of GRP 0006 PDC-CAP Portable Dust Collectors Emissions Caps | Change made. |
| Inventories Group Membership EQT 0205 | Plasma Burning Machine 1 Dust Collector A should be member of GRP 0010 BCM-CAP Burning and Cutting Machines Emissions Cap | Change made. |
| Inventories Group Membership EQT 0206 | Plasma Burning Machine 2 Dust Collector A should be member of GRP 0010 BCM-CAP Burning and Cutting Machines Emissions Cap | Change made. |
| Inventories Group Membership EQT 0207 | Plasma Burning Machine 3 Dust Collector A should be member of GRP 0010 BCM-CAP Burning and Cutting Machines Emissions Cap | Change made. |
| Inventories Group Membership EQT 0208 | Plasma Splitter/DeFanger Dust Collector should be member of GRP 0010 BCM-CAP Burning and Cutting Machines Emissions Cap | Change made. |
| Inventories Group Membership EQT 0211 | Plasma Burning Machine 1 Dust Collector B should be member of GRP 0010 BCM-CAP Burning and Cutting Machines Emissions Cap | Change made. |

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| Inventories Group Membership EQT 0212 | Plasma Burning Machine 2 Dust Collector B should be member of GRP 0010 BCM-CAP Burning and Cutting Machines Emissions Cap | Change made. |
| Inventories Group Membership EQT 0213 | Plasma Burning Machine 3 Dust Collector B should be member of GRP 0010 BCM-CAP Burning and Cutting Machines Emissions Cap | Change made. |
| Emission Rates for Criteria Pollutants | Request to group subject items by associated equipment group types to facilitate a more quick understanding of the applicable rates. With the creation of new subject ID numbers and the replacement of existing EQT numbers, it is difficult to identify source emission rates since the subject items are currently listed in numerical order in the draft permit. | The subject item names have been altered such that they now appear in the Emission Rates For Criteria Pollutants and the Emission Rates For TAP/HAP & Other Pollutants sections of the Permit. |
| Emission Rates for Criteria Pollutants RLP 0026 | Emission point ID numbers under "RLP 0026" should be corrected to read "016G, 016SCG" | Change made. |
| Emission Rates for TAP/HAP & Other Pollutants EQT 0155 | Remove "<" symbols from Cumene Avg lb/hr and Tons/Year fields | Change made. |
| Emission Rates for TAP/HAP & Other Pollutants EQT 0183 EQT 0185 EQT 0188 | Add "< 0.01" maximum hourly emission rate for "Total suspended particulate" pollutant as indicated on the EIQs | Change made. |
| Emission Rates for TAP/HAP & Other Pollutants EQT 0187 | Add "0.15" maximum hourly emission rate for "Total suspended particulate" pollutant as indicated on the EIQ | Change made. |
| Emission Rates for TAP/HAP & Other Pollutants EQT 0189 | Remove the "<" symbol from the maximum hourly emission rate for "1,3-Butadiene" pollutant | Change made. |
| Emission Rates for TAP/HAP & Other Pollutants EQT 0214 EQT 0215 | Add "Copper (and compounds)" "<0.001" lb/hr maximum hourly emission rate and "Manganese (and compounds)" "0.002" lb/hr maximum hourly emission rate as indicated on the EIQs. | Change made. |
| Emission Rates for TAP/HAP & Other Pollutants FUG 0006 | Remove "Arsenic" from list of pollutants; add "Copper (and compounds)" with the following emission rates: 0.070 lb/hr avg, 0.119 lb/hr max, 0.522 tons/year; change to the following emission rates: "Chromium (and compounds)" <0.001 lb/hr avg, 0.001 lb/hr max, 0.003 tons/year; "Manganese (and compounds)" 0.061 lb/hr avg, 0.105 lb/hr max, 0.458 tons/year; "Total suspended particulate" 2.77 lb/hr avg, 4.70 lb/hr max, 20.60 tons/year | Change made. |

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| Emission Rates for TAP/HAP & Other Pollutants UNF 0001 | Revise "Arsenic (and compounds)" emission rate to "<0.001" tons/year. Add "Barium (and compounds)" emission rate of "<0.001" tons/year. Revise "Chromium (and compounds)" to 0.003 tons/year. Remove the "<" symbol from the Dimethyl phthalate 0.003 tons/year emission rate. Revise "Manganese (and compounds)" emission rate to 0.555 tons/year. | Change made. |
| Specific Requirements Condition 4 | Request to modify Condition 4 to specifically allow the use of abrasive media that have received an exemption from the size requirements as provided for at LAC 33:III.1327.B.5. | Condition 4 now reads, "Particulate matter fines < 10 % by weight of the abrasive that would pass through a No. 80 sieve as documented by the supplier, unless exempted by DEQ on a case-by-case basis. If supplier documentation is not provided for weight percent of fines in abrasive material, take samples according to ASTM standard ASTM D 75-87, reapproved 1992, before initial use." |
| Specific Requirements Condition 6 | Condition 6 should be modified to include both options allowed for at LAC 33:III.1329.A.1 and A.2: "Fully enclose the item, or surround the structure, to be blasted, or prepare and implement a best management practices (BMP) plan as described in LAC 33:III.1331." As the condition currently reads, the option to prepare and implement a BMP is not included in the permit. | Condition 6 now reads, "Fully enclose the item or surround the structure to be blasted, or prepare and implement a best management practices (BMP) plan as described in LAC 33:III.1331." Also, additional conditions have been added that pertain to BMP plans if implemented. |
| Specific Requirements Condition 7 | Request to remove Condition 7 as blast cabinet exhaust requirements do not apply to outdoor blasting activities. | Change made. |
| Specific Requirements Condition 20 Condition 21 Condition 33 Condition 36 Condition 134 Condition 136 Condition 158 Condition 161 Condition 165 Condition 167 Condition 169 Condition 172 | Request for an exemption from the daily opacity visible emissions checks in accordance with LAC 33:III.1311.E, which provides for consideration of an exemption for PM sources with emissions "already less than that allowed by the process weight rate limitation (LAC 33:III.1321, Table 3)". These emission sources are in compliance with the process weight rate limitation and this exemption is currently part of our permit. The affected sources are vented to high efficiency cartridge dust collectors that have no history of visible emissions. Additionally, our current permit requires weekly visible emissions checks of four representative dust collectors. According to a review of the records of these checks, these units have had no visible emissions in the last 5 years. Many of the affected dust collectors are not operated each work day. As a result, we believe that daily visible emission checks are excessive and we are requesting an exemption from the daily checks or a reduction in frequency from daily to weekly inspections which is our current requirement. If daily visible emission checks are to remain in our permit, we are requesting that our permit contain provisions for an eventual reduction in monitoring frequency based on the development of records demonstrating that the dust collectors have no visible emissions. | Change made. Table 2 of the Briefing Sheet has been updated as well. The following language now applies to Dust Filters in CRC 0001; CRC 0003, CRC 0014, and CRC 0015: Filter vents: Visible emissions monitored by visual inspection/determination weekly. If visible emissions are observed, shut down the affected unit and restore operation of the filter to its normal or usual manner of operation before resuming operation of the affected unit. Filter vents: Visible emissions recordkeeping by electronic or hard copy weekly. Keep records of visible emission checks on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. |

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| Specific Requirements CRG 001 | Clarify Group Members to remove EQT 0045, which is a non-TAP Dust Collector with 99.90% efficiency. | Change made. |
| Specific Requirements CRG 005 | Clarify Group Members to include: EQT 0183, EQT 0185, EQT 0187, EQT 0189, RLP 0020, RLP 0021, RLP 0022, RLP 0023, RLP 0024, RLP 0025, RLP 0026, RLP 0027, RLP 0037, RLP 0038, RLP 0039, RLP 0040, RLP 0041 | The CRG 005 requirements have been copied to CRG 013 and CRG 016. CRG 013 includes subject items EQT 0187, EQT 0189, RLP 0020, RLP 0021, RLP 0022, RLP 0023, RLP 0024, RLP 0025, RLP 0026, RLP 0027, RLP 0037, RLP 0038, RLP 0039, RLP 0040, and RLP 0041. CRG 016 includes subject items EQT 0183 and EQT 0185. |
| | | CRG 005 is for painting operations only. CRG 013 is for exhaust vents associated with blasting and painting operations. CRG 016 is for dust collectors associated with blasting and painting operations. |
| Specific Requirements CRG 005 Condition 37 through Condition 96 | Request to remove excessive regulatory citation of VOHAP limits on specific marine coating categories. These conditions reference the two sets of listed VOHAP limits, for three specified limits each, for all of the coating categories from Table 2 to 40 CFR Part 63 Subpart II. As indicated in the Subpart II rule, these two sets of VOHAP limits are equivalent. Our facility actively tracks the VOHAP content in terms of grams per liter of coating (minus water and exempt compounds). Request to remove Conditions 37 through 96 and replace with language similar to Condition 123 which states "Shall comply with the VOC limits of the section." | Conditions 37 through 96 have been removed. |
| Specific Requirements CRG 005 Condition 125 | Request to remove reference to the test methods specified in LAC 33:III.2123.E1. through E.6. since compliance with LAC 33:III.2123.C is demonstrated through monitoring and recordkeeping of paint manufacturer certifications as is provided for at LAC 33:III.2123.D.3. and included in permit at Condition 124. | No change will be made. LAC 33:III.2123.E is applicable as well. |
| Specific Requirements CRG 005 Condition 128 | Remove reference to Area K which was a former outside blasting and painting area that is not longer in operation at the shipyard. | Change made. |
| Specific Requirements CRG 0010 Condition 147 | Request to clarify or remove the wording "once initially" from the requirement. The referenced rule at LAC 33:III.1513.C. requires recordkeeping and retention of sufficient data to show annual emissions from the affected emission units and the annual recordkeeping requirement at Condition 147 would meet the sufficient data requirement of the rule. | Change made. |
| Specific Requirements GRP 0004 Condition 198 | Request to modify language of condition to read: "Due annually, by the 31" of March, unless otherwise directed by DEQ". | Change made. |

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| Specific Requirements GRP 0006 Condition 206 | Request to modify language of condition to read: "Due annually, by the 31" of March, unless otherwise directed by DEQ". | Change made. |
| Specific Requirements GRP 0007 Condition 211 | Request to modify language of condition to read: "Due annually, by the 31" of March, unless otherwise directed by DEQ". | Change made. |
| Specific Requirements GRP 0008 Condition 213 | Request to modify language of condition to read: "Due annually, by the 31" of March, unless otherwise directed by DEQ". | Change made. |
| Specific Requirements GRP 0009 Condition 218 | Request to modify language of condition to read: "Due annually, by the 31" of March, unless otherwise directed by DEQ". | Change made. |
| Specific Requirements GRP 0010 Condition 224 | Request to modify language of condition to read: "Due annually, by the 31" of March, unless otherwise directed by DEQ". | Change made. |
| Specific Requirements UNF 0001 Condition 246 | Request to clarify that requirement refers specifically to notifications of Emergency Conditions. Recommend revising language to read: "Submit Emergency Conditions notification..." | Change made. |
| Specific Requirements UNF 0001 Condition 247 | Request to clarify that requirement refers specifically to notifications of Emission Control Bypasses. Recommend revising language to read: "Submit Emission Control Bypasses notification..." Also request condition language be modified to clearly refer to "Single Point of Contact (SPOC), Office of Environmental Compliance, Emergency and Radiological Services Division". | Change made. |
| Specific Requirements UNF 0001 Condition 248 | Request to clarify that requirement refers specifically to notifications of Nonemergency Conditions. Recommend revising language to read: "Submit Nonemergency Conditions notification..." | Change made. |
| Specific Requirements UNF 0001 Condition 250 | Request to modify language to replace the phrase "along with" with the word "in", in order to match the language of the referenced rule at LAC 33:III.5107.B.5. The modified section of the condition would read in part: "... to DEQ in the annual emission report..." | Change made. |
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